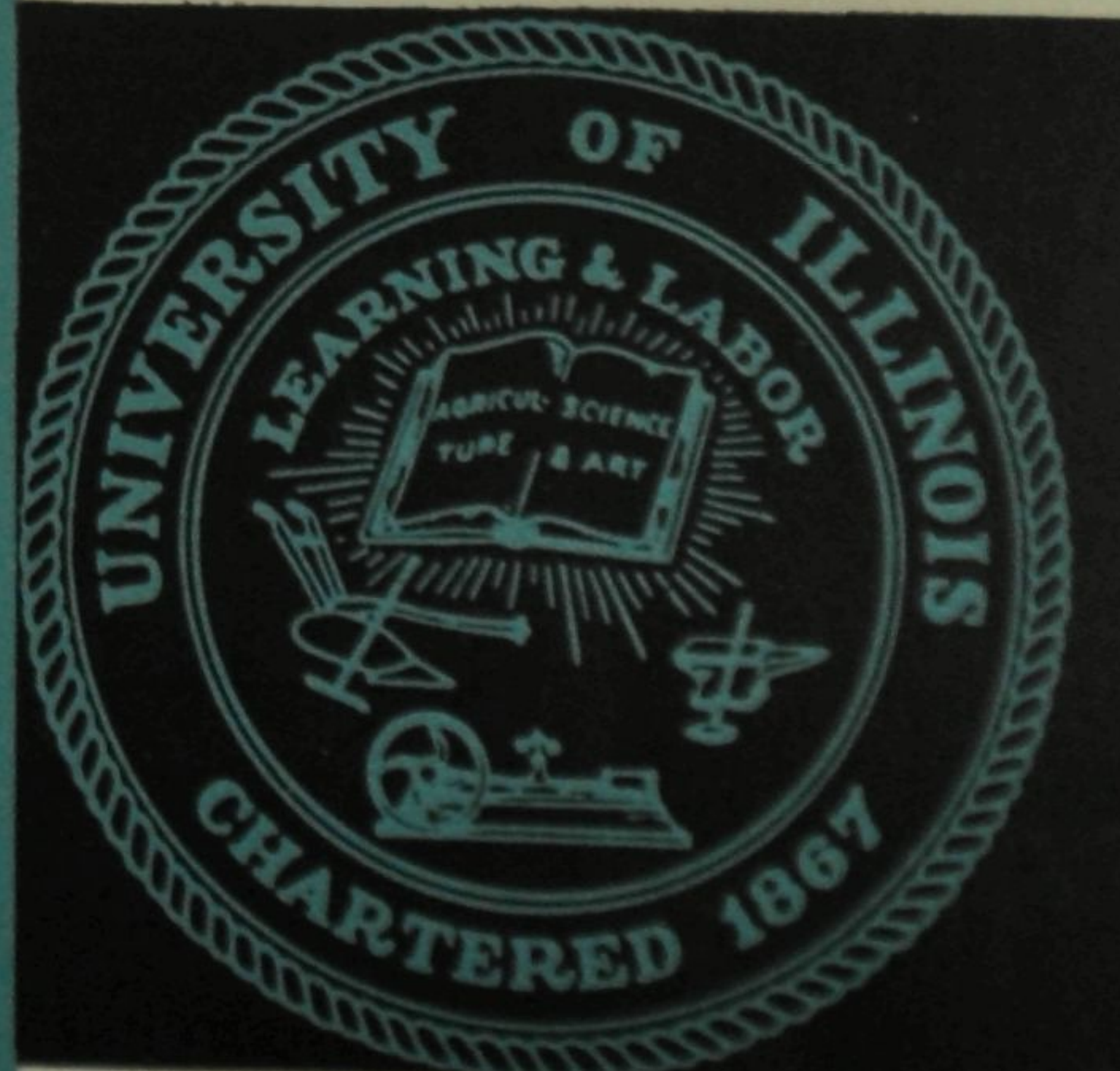


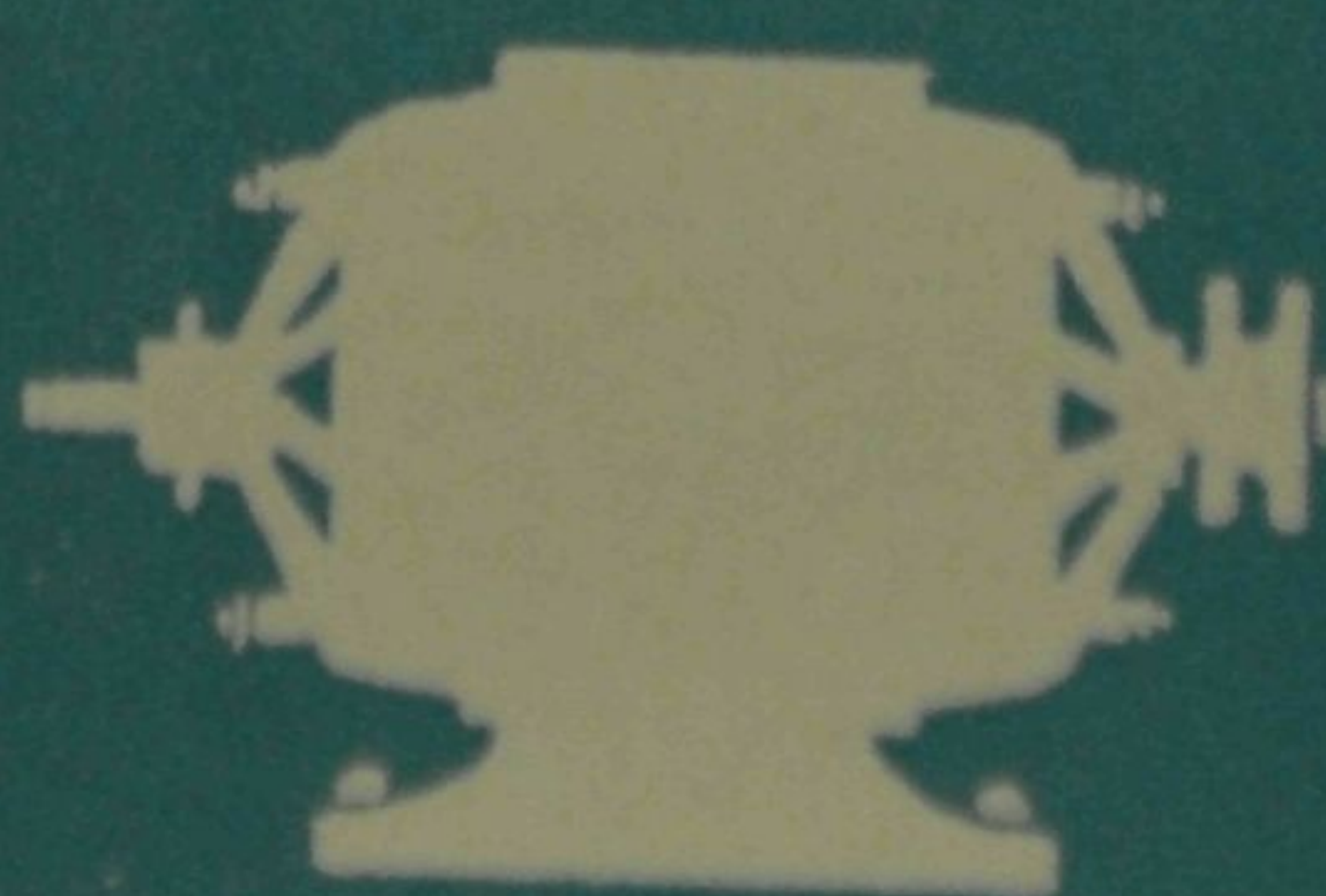
**FRIDAY**  
March 14  
10 a.m.-9 p.m.

**SATURDAY**  
March 15  
9 a.m.-5 p.m.



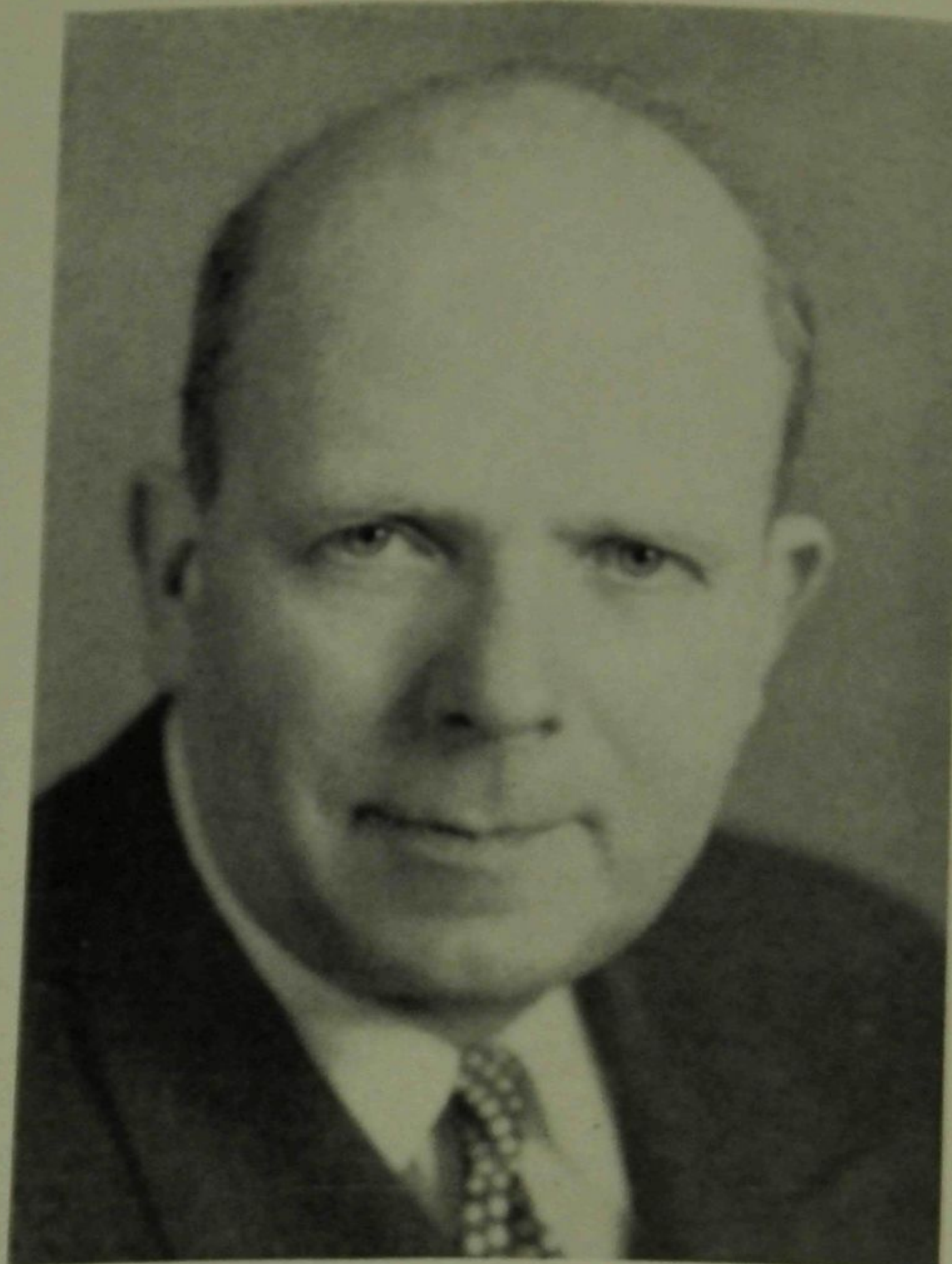
**ENGINEERING OPEN HOUSE**

**1958**





**WELCOME  
TO  
OPEN  
HOUSE!**



Greetings from all of us in the College of Engineering! Each year we enjoy this opportunity to show you what students in engineering do, and give you some insight into how they are educated.

With the displays of teaching methods and facilities, you are, of course, seeing the "lighter side" of professional education. The planning and execution of these exhibits represent major additions to a heavy study load. For their efforts, we are indebted to the Student Coordinating Committee, the Student Societies, Departmental Advisors, and other students and faculty members who have given full support.

The advent of the "space age" has confirmed the demand for engineers and scientists, placing increased emphasis on quality rather than quantity. The intensified need for the scientist-engineer, who possesses knowledge of both basic and engineering sciences, finds us at Urbana establishing new curricula and new programs and revising others. We hope that these displays will help you realize the changes constantly taking place in engineering as a leading force of our society today.

Especially we would like you to be aware of the breadth and diversity of our resources here, and the hundreds of projects we are pursuing for the benefit of our State and Nation. You are welcome visitors, both as friends of engineering and as citizens of Illinois. We wish you a pleasant, informative, and profitable stay.

Sincerely,

A handwritten signature in dark ink, appearing to read "W. L. Everitt".

W. L. EVERITT  
Dean

**TIME OF OPERATION** — The Open House will be held from 10 a.m. to 9 p.m., Friday, March 14 and from 9 a.m. to 5 p.m., Saturday, March 15.

**INFORMATION** — The Headquarters for Engineering Open House is on the first floor of Civil Engineering Hall. Guided tours of the Open House will originate from this office periodically.

**PARKING** — Free parking will be allotted all the visitors of Engineering Open House. Visitor Parking Permits will be available at Open House Headquarters on the first floor of Civil Engineering Hall.

**FOOD SERVICE** — The cafeteria in the basement of the Illini Union serves lunch from 11:30 a.m. to 1:15 p.m., and the soda fountain is open from 2:00 to 4:30 p.m. The serving line is shortest after 12:20. The Bevier Hall cafeteria (New Home Economics Building) will be open on Friday only from 11:30 to 12:30. In addition, there are many restaurants in the campus business district.

**CAMPUS TOURS** — Through the cooperation of the Illini Union, guided tours of the campus will leave room 114 Civil Engineering Hall between 1:00 and 4:00 p.m. both Friday and Saturday. These tours will be about one hour in length and will include the quadrangle and a brief visit to either a men's or women's residence hall.



Sanitary Engineers Purify the Boneyard



## AERONAUTICAL ENGINEERING

Aero. Lab. A and B

HIGH SPEED WIND TUNNEL

SHOCK TUBE

RAM JET

ROCKET ENGINES

TURBOJET ENGINE

TURBOPROP ENGINE

PULSE JET

AIRFRAME TESTING

PHOTOELASTIC TEST

FLUTTER

VARIABLE-PITCH PROPELLER

SMOKE-FLOW TUNNEL

DISPLAY OF FLIGHT REGIME PROBLEMS

PLASMA-JET GENERATOR

LINK TRAINER

## AGRICULTURAL ENGINEERING

South West Corner of Mechanical Engineering Laboratory

M & W DYNAMOMETER — Measure tractor horsepower

PISTON PRESSURE MEASUREMENT

ENGINEERING DEVELOPMENT OF TILE DRAINAGE TECHNIQUES

DEVELOPMENT OF NEW FARM STRUCTURES

MODERNIZATION OF FARM STRUCTURES

PNEUMATIC FEED MOVEMENT

HEAT PUMP — Crop drying

## CERAMIC ENGINEERING

Ceramics Building

ELECTRICAL PORCELAINS

GLASS TECHNOLOGY AND USES

MOVIES OF THE CERAMIC INDUSTRY

NUCLEAR CERAMICS

PORCELAIN ENAMELS

REFRACTORIES IN INDUSTRY

Ceramic Engineering (continued)

SMELTING OF CERAMIC RAW MATERIALS

STRUCTURAL CLAY PRODUCTS

WHITEWARE PRODUCTION

WHITEWARES IN THE HOME

## CHEMICAL ENGINEERING

East Chemistry Building

UNIT OPERATIONS AND EQUIPMENT — Unit operations laboratory, Room 8

SENIOR AND GRADUATE RESEARCH PROJECTS — Room 194

CARBONATION OF "CHEM-POP"

ION EXCHANGE DEMONSTRATION

PRELIMINARY ORE TREATMENT

RADIOCHEMISTRY

ROTARY FILTER

ALL-GLASS DISTILLATION UNIT

CHEMICAL MAGIC SHOW — Room 116, every hour on the hour



Unit Operations Laboratory in East Chemistry Building



## CIVIL ENGINEERING

### Civil Engineering Hall

TRAFFIC STUDY MAPS

MODEL OF HIGHWAY CONSTRUCTION ON CHICAGO'S HALSTED STREET  
INTERCHANGE

MOVIES — Including film on Mackinac Straits Bridge

ACTUAL CONSTRUCTION EQUIPMENT DISPLAY

WATER TREATMENT PLANT IN ACTION

MODEL OF WATER AND SEWAGE FACILITIES OF AN AVERAGE TOWN

SURVEYING INSTRUMENTS DISPLAY

DEVELOPMENT OF TOPOGRAPHIC MAP BY AERIAL PHOTOGRAPHY

HYDRAULICS EXHIBITS AND DEMONSTRATIONS

EXAMPLES OF CLASSROOM ACTIVITY

ILLINOIS CENTRAL RAILROAD EQUIPMENT — Diesel Locomotive, Standard Coach, Dynamometer Car, Caboose, Road Bed Equipment.

The railroad equipment is located on the University siding near Abbott Power Plant at the Stadium Drive underpass. Free bus service to the Railroad Exhibit and the Betatron leaves every half hour from the corner of Burrill and Green streets (near Civil Engineering Hall).

### Talbot Laboratory

DISPLAY DEPICTING THE STRUCTURAL ENGINEER IN THE AIRCRAFT AND MISSILE INDUSTRY

EXAMPLES OF STRUCTURAL RESEARCH IN THE CIVIL ENGINEERING DEPARTMENT

## ELECTRICAL ENGINEERING

### Electrical Engineering Building

DESIGNS IN MATHEMATICS — Room 59

PRACTICAL POWER — Room 50

TELEPHONE DISPLAY — Room 50

MOVIES

Careers in Engineering (On the Hour)

Neurosonic Surgery (On the Half Hour) — Room 138

LIGHT AT WORK — Room 151

### Electrical Engineering (continued)

HIGH FIDELITY — Lounge, Room 165

DO YOU REMEMBER? — Room 265

CREATION THROUGH ENGINEERING — Rooms 251, 246, 240

WHAT'S IN A COURSE E.E. 353 — Room 245

WPGU ON THE AIR (Student Radio on Campus) — Room 241

## GENERAL ENGINEERING

### Transportation Building

HISTORY OF ENGINEERING

CAREERS IN ENGINEERING JOURNALISM AND SALES

BUSINESS AND GEOLOGY

ENGINEERING LAW

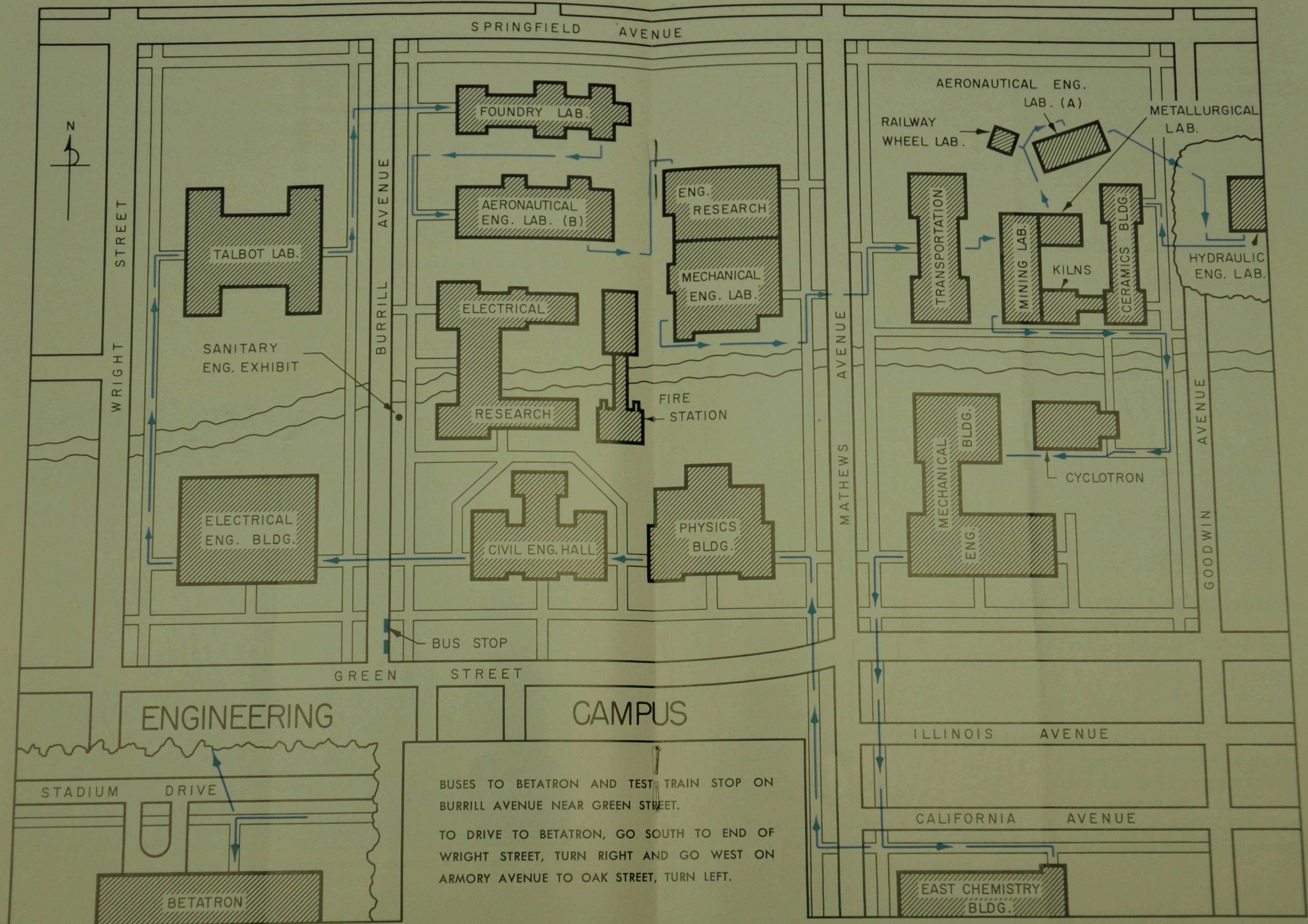
DESCRIPTIVE GEOMETRY

MACHINE DRAWING



This 28-Foot Parabolic Antenna Receives Signals Bounced from the Moon in a Study of the Ionosphere







### General Engineering (continued)

AIRCRAFT DRAFTING AND LOFTING  
GRAPHICAL COMPUTATION METHODS  
PERSPECTIVE DRAWING  
LETTERING MACHINES  
ELLIPSE MACHINE  
ENGINEERING ILLUSTRATION — Axonometric Projection Boards, Air  
Brush, Zipatone, Doubletone

## MECHANICAL ENGINEERING

### Mechanical Engineering Building

HEAT TREATMENT OF METALS — 1st. floor  
WELDING LABORATORY — 2nd. floor  
METAL CUTTING RESEARCH — 2nd. floor  
MECHANICS OF MACHINERY DISPLAY — 3rd. floor  
INTERNAL COMBUSTION ENGINES — 1st. floor  
MOVIES — Room 110

### Foundry Building

FOUNDRY DEMONSTRATIONS

### Mechanical Engineering Laboratory

MECHANICAL ENGINEERING HEAT AND POWER LABORATORY

## METALLURGICAL ENGINEERING

### Metallurgical Engineering Laboratory

CORROSION IN ACTION  
GALVANIC CELLS  
ELECTRO-PLATING  
METALLOGRAPHIC AND DARKROOM EQUIPMENT  
MICROSTRUCTURES OF METAL  
THERMOCOUPLE DEMONSTRATION  
STEEL PHASE TRANSFORMATION  
HEAT TREAT DEMONSTRATION  
RESEARCH AND DEVELOPMENT PROJECTS

## MINING ENGINEERING

### Mining Engineering Laboratory

MINERAL ECONOMICS — Location and value of Illinois minerals  
GEOPHYSICAL PROSPECTING EQUIPMENT — Including Fully Equipped  
Field Truck  
AUTOMATIC HOISTING  
SLUSHER LOADING  
VENTILATION DISTRIBUTION AND CONTROL  
ROOF CONTROL BY BOLTING  
GAS TESTING  
ORE BENEFICATION EQUIPMENT  
WORKING MODEL OF AN OIL FIELD



ILLIAC, a High-Speed Electronic Digital Computer

## PHYSICS

### Physics Building

MECHANICS — Demonstrations of motion as it is in outer space  
NUCLEAR PHYSICS  
LOW TEMPERATURES — 300° below zero  
LIGHT

### Physics Research Building

BETATRON — 300-million volt accelerator  
Free buses to the Betatron will leave from Civil Engineering Hall  
every half hour.



## DIGITAL COMPUTER LABORATORY

Engineering Research Laboratory

OPERATION OF A HIGH-SPEED ELECTRONIC DIGITAL COMPUTER, THE  
ILLIAC — Demonstrated as interest demands  
COMPUTER COMPONENTS

## AIR FORCE R.O.T.C.

Mechanical Engineering Building

ENGINEERING MOCK-UPS AND DISPLAYS OF AIRCRAFT  
AFROTC INFORMATION

## ARMY R.O.T.C.

Mechanical Engineering Building

Corps of Engineers

BRIDGING — Fixed and Floating Bridge Models  
DEMOLITION — Procedures and Explosives Models  
ENGINEERING PROJECTS DISPLAY — Construction equipment models, pu-  
rification of radioactive water  
SOCIETY OF AMERICAN MILITARY ENGINEERS ACTIVITIES

Ordnance

DISPLAY OF ORDNANCE EQUIPMENT  
81 MM. MORTAR

Signal Corps

PORTABLE TWO-WAY RADIOS  
TELEPHONES FOR VARIOUS PURPOSES  
TELETYPE  
SWITCHBOARDS

Army ROTC Information

## NAVAL R.O.T.C.

Mechanical Engineering Building

BOMB, GUN, AND GUIDED MISSILE TYPE AMMUNITION  
"G" SUIT

MODELS OF NAVAL MACHINERY — Propulsion Plants (Nuclear and Con-  
ventional) and other equipment used aboard Naval Vessels

MODEL SHIPS

NAVY MOVIES

## THEORETICAL AND APPLIED MECHANICS

Talbot Laboratory

VIBRATING BODIES AND VIBRATING MEASURING INSTRUMENTS — Room  
220

FATIGUE OF METALS — Room 225

HYDRO-ELECTRIC PLANT IN OPERATION — Room 126

WIND EFFECTS ON A MODEL HOME — Room 126

HYDRAULIC PUMP DEMONSTRATION — Room 125-126

STRAIN GAGES — Room 220

A CLASS IN SESSION — Room 225

10-12 a.m., 1-3, 3-5, and 7-9 p.m. Friday

10-12 a.m. and 1-3 p.m. Saturday

CONCRETE CYLINDER COMPRESSION IN A 3 MILLION POUND TESTING  
MACHINE — Crane Bay

11 a.m., 2, 4, 7, 9 p.m. Friday

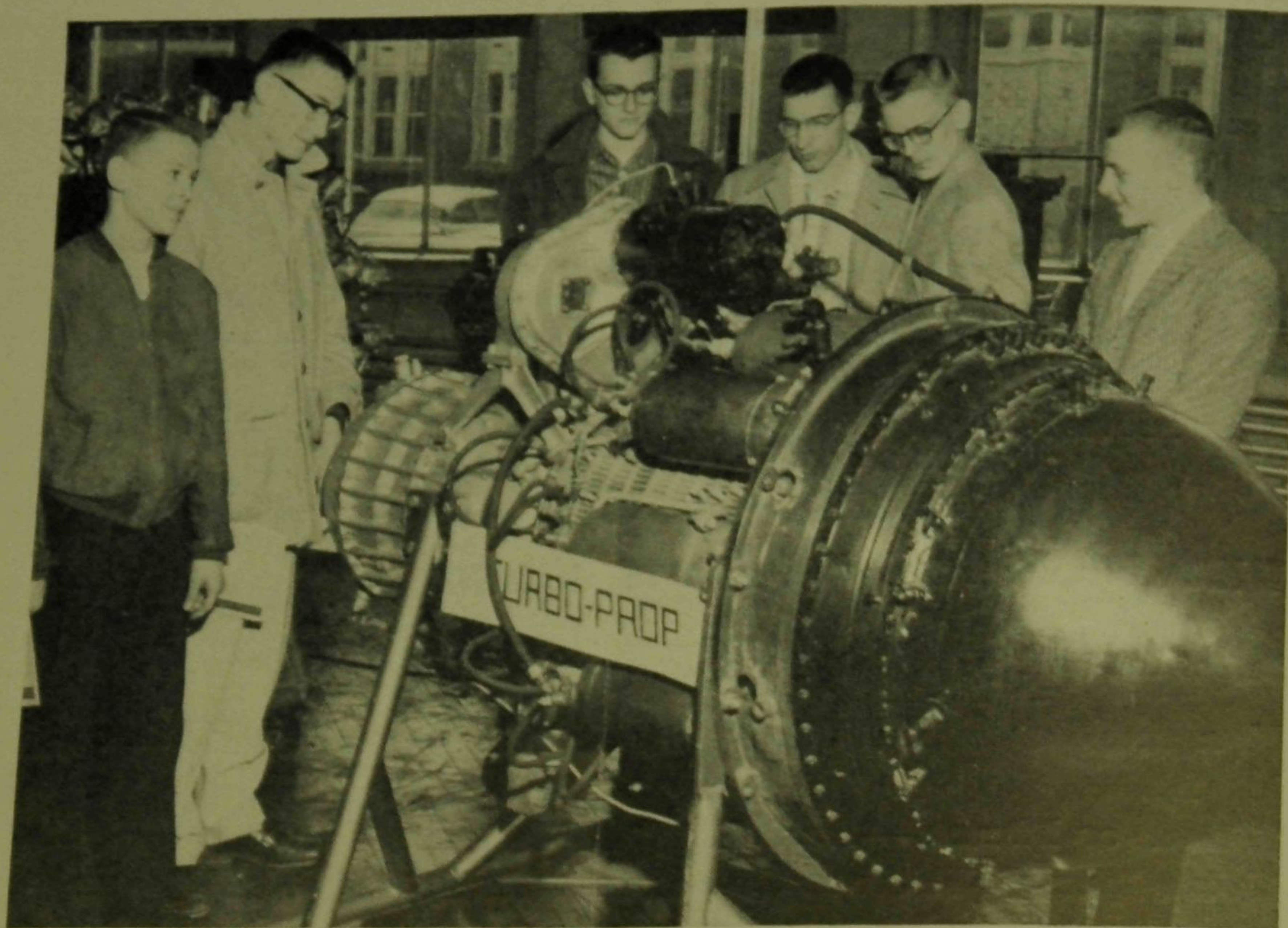
10 a.m., 1:30, 3:30 p.m. Saturday

The T & A M Department Wishes to Announce the

### NEW CURRICULUM IN ENGINEERING MECHANICS

The Department of Theoretical and Applied Mechanics is introducing a new course of study beginning in September, 1958, leading to the Bachelor of Science degree in Engineering Mechanics. The courses are oriented for the student to obtain great depth of understanding of the basic sciences (mathematics, physics, chemistry) and the engineering sciences (mechanics of solids, fluid flow, thermodynamics, etc.) and to gain some insight and skill in the application of these sciences to engineering problems. Additional information is available in room 220.





Open House Visitors Inspect a Cutaway Aircraft Engine

### ST. PAT'S BALL

On the evening of March 15, following the completion of Open House, the College of Engineering will hold its annual St. Pat's Ball. St. Pat himself will be there to bestow the title of "Knight of the Order of St. Pat" upon deserving seniors. The dance is to be held from 9 to 12 p.m. at Huff Gym. Tickets can be purchased at the Illini Union box office.

### . . . AND FINALLY, OUR THANKS

An event as extensive as Engineering Open House would be impossible without the untold hours of work by many individuals. We wish to thank them all—Faculty, Central Committeemen, Committee Chairmen, and Students.

We also wish to thank you for visiting the Open House. It was a pleasure to have you as our guests.

JOHN J. BRENNAN  
*General Chairman*

### OPEN HOUSE PERSONNEL

GENERAL CHAIRMAN  
John Brennan

VICE-CHAIRMAN  
Martin Chergosky

SECRETARY-TREASURER  
Joe Marchello

PROGRAM COMMITTEE  
Phil Philhower, Chairman  
Bill Baron, Cover

HIGH SCHOOL PUBLICITY  
Chuck Connors

ST. PAT'S BALL  
Ray Borelli, Chairman

PUBLICITY COMMITTEE  
Dave Kamm, Chairman  
Dick Northrup  
Sue Siudzinski  
Bob Wieneke

PHYSICAL ARRANGEMENTS  
Adrian Crook, Chairman  
Jim De Pauw  
Bob Gibson

COORDINATING COMMITTEE  
Martin Chergosky, Chairman  
Robert Strain  
Dean M. Peterson  
George Gunderson  
Peter Nikias

Ronald Larson  
Jesse Riggs  
Loren Sanders  
Robert James  
Bruce Beyaert  
Ralph Gee  
Ronald Lawwill  
William Corley  
John Lane  
Donald White  
Richard Buesinger  
David Clay  
John Morse  
Rich Gordon  
Neil Felmus

FACULTY ADVISORS  
W. L. Shick  
J. R. Carroll  
G. R. Eadie  
L. J. Koester  
M. S. Peters  
H. B. Puckett  
G. A. Wempner  
Capt. S. W. Franklin  
R. J. Beals  
A. S. Chodakowski  
H. H. Hilton  
J. L. Merritt  
W. H. Munse  
B. G. Ricketts  
Lt. (jg) G. J. Miller  
Capt. N. R. Kohn  
L. D. Fosdick